SUBJECT INDEX, VOLUME 28

Acromegaly, lipolytic effect of HGH in, 1031
  pituitary apoplexy in, 1784
  reabsorption of phosphorus in, 999
ACTH, deficiency of, hypoglycemia with, 146
  ectopic syndrome, amino-glutethimide in, 921
  lipoid tumor response to, 1756
  LVP-dimer and release of, 73
  new, activity in humans of, 1377
  potentiation of biologic activity of, by human plasma, 1465
  release of, after metyrapone in diabetes insipidus, 731
    in pituitary disease, 1581
ACTH-dexamethasone test, short, 558
Addison's disease, ACTH in human plasma in, 1367
  heterogeneity in idiopathic, 795
ADH syndrome, antidiuretic principle of tumor extracts from, 162
Adrenal gland(s), aldosterone secreting tumor of, pregnenolone metabolism in, 983
  function of, during Ca chemotherapy, 308
    weight and sex, 711
  human, synthesis of 18-hydroxy DOC by, 1380
  PS conversion by human fetal, 19
  synthesis of 5α-pregnane-3,20-dione by, 629
Adrenocortex, function of, in Stein-Leventhal syndrome, 1781
Adrenocortical failure in panhypopituitarism, 259
Adrenocorticotropin, effect of, on insulin secretion, 1479
Albumin, congenital goiter with iodo-serum, 1797
Aldosterone, excretion of, corticotropin effect on, 1006
    glucocorticoid effect on, 1014
  in hypertension, 359
  in the menstrual cycle, 1269
  metabolism of, in cystic fibrosis, 582
  postural effects on, 1630
  secretion rate of, in congenital adrenal hyperplasia, 1445
  sodium deprivation and, 451
Amenorrhea, hypothyroidism and galactorrhea, 591
Amino-glutethimide in ectopic ACTH syndrome, 921
Amniotic fluid, steroids in, 1189
AMP, cyclic, effects on thyroid function, 1816
Analbuminemia, thyroxine binding in, 1064
Analogues, substrate, enzyme inhibition by, 49
Androgen(s), biosynthesis of, in ovarian stroma, 1547
  GH secretion enhanced by, 425
  plasma, in polycystic ovary syndrome, 479
    in pregnancy, 34, 1133
  production of, in adrenal carcinoma, 215
  suppression of, in hirsutism, 1300
Δ⁴-Androstenedione measurement, 1347
Angiotensin, plasma, and renin activity, 1684
Angiotensin I, metabolic fate of metabolite of, 728
  cytophilic antithyroglobulin, 1389
Antibody, antithyroid, thyroid-stimulating, 596
Apoplexy, pituitary, in acromegaly, 1784
Birth, PBI and maturity at, in twins, 693
Bleeding, G.I., cortisol binding globulin in, 15
Blood, estrogens in, 244
Bone, changes in, in a patient with hypervitaminosis A, 1833
  Paget's disease of, magnesium metabolism and fluoride therapy in, 700

CAH, and deficient synthesis of pregnenolone, 153
  progesterone and hydroxyprogesterone in, 1085
Calcitonin-like responses during thyroid surgery, 740
Calcium, metabolism of, in Fanconi syndrome, 1555
Cancer, breast, in Klinefelter's syndrome, 897
    and 17-KS, 667
  bronchogenic, gonadotropin-secreting, 809
  estrogens in feminizing adrenal, 192
  human thyroid, 1257
Carbohydrate(s), metabolism of, effects of contraceptive steroids on, 1564
  responses of hyperlipemic subjects to, 1773
Carcinoma, adrenal, androgen production in, 215
  feminizing, 608
  medullary, of the thyroid, Cushing's syndrome and, 1199
  parathyroid, thyrocalcitonin in, 1672
CBG, in G.I. bleeding, 15
  idiopathic or genetic elevation of, 1073
Chlorpropamide, antidiuretic effect of, 332
Cholesterol sulfate in urine, 927
Chromosomes, male with 4 Y, 1370
CL-868, inhibition of estrogen binding by, 1824
Clomiphene, inhibition of estrogen binding by, 1824
Contraceptives, oral, site of action of, 1747
Corpora lutea, progesterone synthesis in, 1249
Cortex, human adrenal, cytochrome P450 in, 1143
Corticosteroid(s), fluorometric determination of, 1373
  plasma, response to lysine-vasopressin, 511
Corticosterone, fluorometric determination of, 137
Corticotropin, effect of, on aldosterone excretion and plasma renin, 1006
Cortisol, binding affinity of transcortin to, 1281
  fluorometric determination of, 137
  metabolism of, at high altitude, 379
    and norethandrolone, 92
  plasma, low levels of, in Graves' disease plus Cushing's syndrome, 789
  production during pregnancy, 661
  production rate of, 1618
  secretion during fasting, 1843
  unbound plasma, effect of estrogen treatment on, 313
  urinary, by CPB radioassay, 343
Cushing's disease, ACTH in human plasma after adrenalectomy for, 1367
Cushing's syndrome, epinephrine synthesis in, 1082
  plus Graves' disease, 789
  medullary carcinoma and, 1199
  suppression test in, 422
Cytochrome P450 in human adrenal cortex, 1143

SUBJECT INDEX, VOLUME 28

Acromegaly, lipolytic effect of HGH in, 1031
  pituitary apoplexy in, 1784
  reabsorption of phosphorus in, 999
ACTH, deficiency of, hypoglycemia with, 146
  ectopic syndrome, amino-glutethimide in, 921
  lipoid tumor response to, 1756
  LVP-dimer and release of, 73
  new, activity in humans of, 1377
  potentiation of biologic activity of, by human plasma, 1465
  release of, after metyrapone in diabetes insipidus, 731
    in pituitary disease, 1581
ACTH-dexamethasone test, short, 558
Addison's disease, ACTH in human plasma in, 1367
  heterogeneity in idiopathic, 795
ADH syndrome, antidiuretic principle of tumor extracts from, 162
Adrenal gland(s), aldosterone secreting tumor of, pregnenolone metabolism in, 983
  function of, during Ca chemotherapy, 308
    weight and sex, 711
  human, synthesis of 18-hydroxy DOC by, 1380
  PS conversion by human fetal, 19
  synthesis of 5α-pregnane-3,20-dione by, 629
Adrenocortex, function of, in Stein-Leventhal syndrome, 1781
Adrenocortical failure in panhypopituitarism, 259
Adrenocorticotropin, effect of, on insulin secretion, 1479
Albumin, congenital goiter with iodo-serum, 1797
Aldosterone, excretion of, corticotropin effect on, 1006
    glucocorticoid effect on, 1014
  in hypertension, 359
  in the menstrual cycle, 1269
  metabolism of, in cystic fibrosis, 582
  postural effects on, 1630
  secretion rate of, in congenital adrenal hyperplasia, 1445
  sodium deprivation and, 451
Amenorrhea, hypothyroidism and galactorrhea, 591
Amino-glutethimide in ectopic ACTH syndrome, 921
Amniotic fluid, steroids in, 1189
AMP, cyclic, effects on thyroid function, 1816
Analbuminemia, thyroxine binding in, 1064
Analogues, substrate, enzyme inhibition by, 49
Androgen(s), biosynthesis of, in ovarian stroma, 1547
  GH secretion enhanced by, 425
  plasma, in polycystic ovary syndrome, 479
    in pregnancy, 34, 1133
  production of, in adrenal carcinoma, 215
  suppression of, in hirsutism, 1300
Δ⁴-Androstenedione measurement, 1347
Angiotensin, plasma, and renin activity, 1684
Angiotensin I, metabolic fate of metabolite of, 728
  cytophilic antithyroglobulin, 1389
Antibody, antithyroid, thyroid-stimulating, 596
Apoplexy, pituitary, in acromegaly, 1784
Birth, PBI and maturity at, in twins, 693
Bleeding, G.I., cortisol binding globulin in, 15
Blood, estrogens in, 244
Bone, changes in, in a patient with hypervitaminosis A, 1833
  Paget's disease of, magnesium metabolism and fluoride therapy in, 700

CAH, and deficient synthesis of pregnenolone, 153
  progesterone and hydroxyprogesterone in, 1085
Calcitonin-like responses during thyroid surgery, 740
Calcium, metabolism of, in Fanconi syndrome, 1555
Cancer, breast, in Klinefelter's syndrome, 897
    and 17-KS, 667
  bronchogenic, gonadotropin-secreting, 809
  estrogens in feminizing adrenal, 192
  human thyroid, 1257
Carbohydrate(s), metabolism of, effects of contraceptive steroids on, 1564
  responses of hyperlipemic subjects to, 1773
Carcinoma, adrenal, androgen production in, 215
  feminizing, 608
  medullary, of the thyroid, Cushing's syndrome and, 1199
  parathyroid, thyrocalcitonin in, 1672
CBG, in G.I. bleeding, 15
  idiopathic or genetic elevation of, 1073
Chlorpropamide, antidiuretic effect of, 332
Cholesterol sulfate in urine, 927
Chromosomes, male with 4 Y, 1370
CL-868, inhibition of estrogen binding by, 1824
Clomiphene, inhibition of estrogen binding by, 1824
Contraceptives, oral, site of action of, 1747
Corpora lutea, progesterone synthesis in, 1249
Cortex, human adrenal, cytochrome P450 in, 1143
Corticosteroid(s), fluorometric determination of, 1373
  plasma, response to lysine-vasopressin, 511
Corticosterone, fluorometric determination of, 137
Corticotropin, effect of, on aldosterone excretion and plasma renin, 1006
Cortisol, binding affinity of transcortin to, 1281
  fluorometric determination of, 137
  metabolism of, at high altitude, 379
    and norethandrolone, 92
  plasma, low levels of, in Graves' disease plus Cushing's syndrome, 789
  production during pregnancy, 661
  production rate of, 1618
  secretion during fasting, 1843
  unbound plasma, effect of estrogen treatment on, 313
  urinary, by CPB radioassay, 343
Cushing's disease, ACTH in human plasma after adrenalectomy for, 1367
Cushing's syndrome, epinephrine synthesis in, 1082
  plus Graves' disease, 789
  medullary carcinoma and, 1199
  suppression test in, 422
Cytochrome P450 in human adrenal cortex, 1143

o,p'-DDD effect on TBG, 386
Dehydroepiandrosterone sulfate, influence of low-calorie diet and fasting on metabolism of, 1525
metabolism in skin, 187
Dehydrogenases, inhibitors of, 1539
Deiodination, artifactual, during TLC, 717
Dexamethasone, effect of, on ACTH release, 644
on response to pyrogen, 1056
overnight suppression test in Cushing's syndrome with, 422
Diabetes insipidus, ACTH response to metyrapone in, 731
Diabetes mellitus, amino acid-induced secretion of insulin in, 266
factors related to age at discovery of, 1487
Dioxan, new rapid radioimmunoassay for HCG, LH, ICSH in plasma with, 1676
Diphenylhydantoin, decreased free thyroxine concentration in patients treated with, 181
Disease, effect of, on chemical constituents of thyroid, 41
DNA, rise in enzyme level by, 1127
DOC, 18-hydroxy, synthesis by human adrenal of, 1380
Down's syndrome, hyperuricemia in, 472
DW-75, new ACTH, activity in humans of, 1377
Dwarfism, polydystrophic, 26
Dystrophy, myotonic, insulin dynamics in, 992

Endocrine function in thalassemia major, 805
Enzyme(s), human pineal, 349
inhibition of, by substrate analogues, 49
Epinephrine, synthesis of, in Cushing's syndrome, 1082
Estetrol, formation of, from neutral precursors, 1611
Estradiol, metabolism of, age and sex factors in, 937
uterine, receptors of, 1227
Estradiol-17β and model of 3β-HSD defect, 231
Estriol, plasma, determination of, in pregnancy, 1067
Estrogen(s), in blood, 244
effect on mature height, 416
in feminizing adrenal cancer, 192
inhibition of binding of, 1824
radio-ligand binding assay of, 127
treatment with, effect on unbound plasma cortisol, 313
urinary, plasma LH and, 1508
Etiocholanolone, effects of, on plasma cortisol and GH, 337
Euthyroidism, effect of age and sex on radioiodine uptake in, 776
geographic variation of radioiodine uptake in, 761
serum TSH levels in, 325
Exercise, serum free thyroxine and binding-proteins after, 714
thyroxine degradation in, 942

Fanconi syndrome, Ca and P metabolism in, 1555
Fasting, cortisol secretion during, 1843
effect on urinary calcium and hydroxyproline excretion in obesity, 311
Feminization, testicular, steroid metabolism in, 1741
Fever, and pituitary response to pyrogen, 1056
sandfly, HGH response during, 1220
Fibrosis, cystic, aldosterone metabolism in, 582
Fluid, balance of, renin and serum sodium, 1704
Fluoride effect on bone in osteoporosis, 869
FSH, bias in radioimmunoassay of, 1276
bioassay in male plasma, 100
daily urinary excretion of, during menstrual cycle, 1419
human, purification of, 886
immunologic, in human urine, 1719
NPA study on radioimmunoassay of, 1214
during pregnancy, 1323
radioimmunoassay of, 519
regulation of, in adult male sera, 1473
serum, during menstrual cycle, 1699
urinary, gel filtration of, 1295
in urinary extracts, 1076

Galactorrhea, hypothyroidism and amenorrhea, 591
Gardner's syndrome, resistance to PTE in, 1153
Gastrin, human, radioimmunoassay for, 1840
Genitalia, ambiguous external, four-stem line mosaicism in infant with, 239
GH, activity in fetal pituitary, 1071
effect on thyroid indices, 603
in hyperthyroidism, 1534
response of, to hypoglycemia in myxedema, 301
to lysine-vasopressin, 511
secretion of, androgen enhancement of, 425
serum, in gigantism, 393
studies in Turner's syndrome, 383
GH-prolactin, MCR and PR of, 1450
Gigantism, serum GH and insulin in, 393
Globulin, testosterone binding, 1160
Glucocorticoid(s), effect of, on aldosterone excretion and plasma renin, 1014
on insulin secretion, 1479
hyperaldosteronism responive to, 1807
Glucose, 2-deoxy-D-, in lipid mobilization study, 535
Glucosiduronate, estriol-3-sulfate-16-, enterohepatic metabolism of, 862
Glucuronides, urinary excretion of, 83
Goiter, congenital, with iodo-serum albumin, 1797
defective iodine metabolism in, 1307
endemic, daily iodine intake in, 1048
effect of iodized oil on serum TSH in, 1669
iodine deficiency and, 114
iodine prophylaxis of, 1730
iodized salt in, 1651
serum TSH levels in, 685
nontoxic, salivary iodide trap in, 117
Gonadotropin(s), familial insufficiency of, 783
human, bioassy and radioimmunoassy of, 1683
Granulosa cells, steroid formation by, 355
Graves' disease, plus Cushing's syndrome, 789
LATS and ophthalmopathy in, 1177
Gynecomastia and hyperthyroidism, 277

Hashimoto's thyroiditis, ophthalmopathy without hyperthyroidism in, 1623
HCG, half-life of, 1763
lipoid tumor response to, 1756
during pregnancy, 1323
radioimmunoassay of, in plasma using dioxan, 1676
serum, decrease in, after delivery, 1712
Height, effect of estrogens on, 416
Hepatoblastoma and sexual precocity, 1317
Heterogeneity, immunochemical, of parathyroid hormone in plasma, 1037
HGH, increased plasma, during propranolol infusion, 1079
lactation without, 1183
lipolytic effect of, in acromegaly, 1031
radioimmunoassay of urinary, 103
response of, during sandfly fever, 1220
Hirsutism, suppression of androgens in, 1300
^{14}C-histamine, metabolism of, in fetal and maternal circulations of perfused human plasma, 1724
Histidylleucine, metabolic fate of, 728
Hormones, steroid, conjugation of, by normal and neoplastic tissues, 1431
HPL, effects of, in man, 485
3β-HSD, model of, estradiol-17β and, 231
Hyaluronic acid in localized myxedema, 433
19-Hydroxyandrostenedione, metabolism of, 1401
17-Hydroxycorticoid, urinary excretion of, after pyrogen injection, 924
17-Hydroxycorticosteroids, effects of weight, sex and diurnal variation on excretion of, 711
15α-Hydroxyestrogens, neutral precursors of, 1611
17α-Hydroxypregnenolone metabolism in men, 836
Hydroxyprogesterone in CAH, 1085
17-Hydroxyprogesterone, measurement in human plasma, 1426
Hydroxyproline, urinary, prednisone effect on, 1113
Hyperaldosteronism, corticoid-responsive, 1807
Hypercalcemia, after acute renal failure, 1224
cellulose phosphate in, 1829
Hyperlipemia, responses to carbohydrates, pancreatic hormones and fasting in, 1773
Hyperparathyroidism, phosphate intake in, 651
primary, psychiatric disorders in, 1491
Hyperplasia, adrenal, delayed onset of, 619
congenital adrenal, aldosterone secretion rate in, 1445
virilizing adrenal, urine inhibitor in study of, 492
Hypertension, feminizing carcinoma with, 608
renin and aldosterone in, 359
Hyperthyroidism, GH in, 1534
gynecomastia and, 277
primary, 567
sympathetic nervous system blocking in, 725
thyroidal uptake and turnover of pertechnetate ion in, 575
Hyperuricemia in Down's syndrome, 472
Hypervitaminosis A, bone changes in a patient with, 1833
Hypoglycemia, with ACTH deficiency, 146
GH response to, in myxedema, 301
Hypoparathyroidism, clinical and genetic heterogeneity in Addison's disease and, 795
familial idiopathic, 61
idiopathic, ovarian and adrenal insufficiency and, 79
Hypopituitarism, prepubertal traumatic, 1768
Hypothalamus, disease of, endocrine tests in, 1589
Hypothyroidism, amenorrhea and galactorrhea, 591
serum TSH levels in, 325

^{131}I, thyroid uptake rates after therapy with, 66
Illness, thyroxine transport in major nonthyroidal, 1023
Insulin, amino acid-induced secretion of, 266
dynamics in myotonic dystrophy, 992
in gigantism, 393
secretion of, effect of adrenocorticotropin and glucocorticoids on, 1479
effect of methacholine on, 1384
Iodide, salivary trap of, in nontoxic goiter, 117
Iodination effect on human LH, 613
Iodine, daily intake in a goiter endemic, 1048
defective metabolism in nontoxic goiter, 1307
deficiency of, and endemic goiter, 114
excretion during short-term fasting, 919
metabolism of intrathyroidal, 169
model of kinetics of, 1
plasma inorganic and absolute uptake of, by thyroid gland, 757
prophylaxis of endemic goiter with, 1730
thyroglobulin-, in thyroid tumors, 437
thyroxine, clinical evaluation of, 420
in vivo activation analysis of, 294
Iodoproteins, thyroidal, in Pendred's syndrome, 1205
Iodothyronines, chromatography of, 305
Isomerases, inhibitors of, 1539

Klinefelter's syndrome, breast cancer in, 897
spermatogenesis in, 1287
17-KS, and breast cancer, 667
and testosterone in plasma, 949

Lactation without HGH, 1183
LATS, inactivation by anti-kappa and anti-lambda antisera, 1440
interaction of TSH and, 286
and ophthalmopathy, 1177
retro-orbital tissue and, 1069
LH, activity in fetal pituitary, 1071
bioassay in male plasma, 100
disc solid-phase radioimmunoassay of, 121
half-life of, 1763
human, iodination of, 613
purification of, 886
during menstrual cycle, 1699
NPA study on radioimmunoassay of, 1214
plasma, and urinary estrogens, 1508
radioimmunoassay of, 519
regulation in adult male sera, 1473
urinary, radioimmunoassay and bioassay of, 543
in urinary extracts, 1076
Lipid mobilization after 2-DG, 535
LVP-dimer and ACTH release, 73

Lysine-vasopressin, plasma cortisone and GH response to, 511
Magnesium, urine, effect of PTE on, 673
Medroxyprogesterone acetate, effect on testicular function, 679
Meglumine and urinary steroids, 1515
Menstrual cycle, aldosterone in, 1269
Metabolic clearance rate of testosterone, factors affecting, 1105
Methacholine, insulin secretion by, 1384
Methyl testosterone, effect on T_4 metabolism and on T_3 kinetics, 1690
Metyrapone, ACTH response to, in diabetes insipidus, 731
Mosaicism, four-stem line, 239
Mucopolysaccharidosis, type VI, 26
Muscular dystrophy, prednisone effect on urinary hydroxyproline in, 1113
Myxedema, GH response to hypoglycemia in, 301
localized, hyaluronic acid in, 433

Neoplasia, thyroid, soluble proteins in, 442
Newborn, 16-oxygenated steroids in, 372
Norethandrolone, and cortisol metabolism, 92
and TBPA metabolism, 831

Obesity, adrenergic nervous system and, 106
effect of fasting on urinary calcium and hydroxyproline excretion in, 311
influence of diet and fasting on metabolism of dehydroepiandrosterone sulfate metabolism in, 1525
17-OHCS, levels of plasma, nyctohemeral periodicity of, 1666
Olfaction impairment in pseudohypoparathyroidism, 624
Ophthalmopathy, in Hashimoto's thyroiditis, 1623
LATS and, 1177
Osteoporosis, fluoride effect on bone in, 869
Ovary(-ies), biosynthesis of steroids in, 819
fetal, steroid biosynthesis by, 1599
polycystic, androgens in, 479
Ovulation, mechanics of, 849

Paget's disease, magnesium metabolism and fluoride therapy in, 700
Panhypopituitarism, adrenocortical failure in, 259
Parathyroid hormone, response to, in hyperparathyroidism, 567
Parathormone, immunoheterogeneity of, 1037
Parathyroid, extract of, resistance to, in Gardner's syndrome, 1153
Parturition, renin during, 412
PBI, and maturity at birth, in twins, 693
Pendred's syndrome, thyroidal iodoproteins in, 1205
Pertechnetate ion in normal and hyperthyroid subjects, 575
Phosphate, cellulose, in hypercalcemia, 1829
intake in hyperparathyroidism, 651
Phosphorus, metabolism in Fanconi syndrome, 1555
reabsorption in acromegaly, 999
Pincus, Gregory Goodwin (1903–1967), 1245
Pituitary gland, fetal, LH and GH of, 1071
function of, vasopressin test of, 1836
release of ACTH in patients with disease of, 1581
response to pyrogen, 1056
Placenta, perfused human, metabolism of ^{14}C-histamine injected into fetal and maternal circulations of, 1724
Plasma, human, measurement of 17-hydroxyprogesterone in, 1426
potentiation of biologic activity of ACTH by, 1465
Polypetides, ACTH-like, steroid responses to, 1120
urinary, with PTH activity, 1571
Posture, effects of, on aldosterone, 1630
Precocity, sexual, hepatoblastoma and, 1317
Prednisone, effect of, on thyroxine distribution, 1335
on urinary hydroxyproline, 1113
on vitamin D metabolism, 1341
Pregnancy, cortisol production rate during, 661
determination of plasma estriol in, 1067
FSH and HCG during, 1323
plasma androgens in, 34, 1133
renin during, 412, 1641
Pregnenolone, CAH and deficient synthesis of, 153
metabolism of, 983
Progesterone, in CAH, 1085
isolation from urine, 1361
synthesis in corpora lutea, 1249
Prolactin, GH-, MCR and PR of, 1450
Propranolol, increased plasma HGH by, 1079
Proteins, soluble, in thyroid neoplasia, 442
Provera and testicular function, 679
PS conversion by human fetal adrenal, 19
Pseudohypoparathyroidism, olfaction and taste impairment in, 624
Pseudopseudohypoparathyroidism, in two females, 1513
Psychopathology in hyperparathyroidism, 1491
PTE effect on urine magnesium, 673
PTH, urinary polypeptides with, 1571
Pyrimidines, fluorinated, adrenal function in patients treated with, 308
Pyrogen(s), fever and pituitary response to, 1056
and the pituitary adrenal axis, 337
urinary 17-hydroxycorticoid excretion after injection of, 924

Radioimmunoassay(s), bias in, 1276
statistical quality control of, 1412
Radioiodine, influence of weight on thyroidal uptake of, 912
measurement of clearance of, 111
uptake of, effects of age and sex on, 776
geographic variation in euthyroid subjects, 761
Renal failure, hypercalcemia following, 1224
Renin, activity of, in anephric humans, 221
and plasma angiotensin, 1684
during pregnancy, 1641
in hypertension, 359
plasma, corticotropin effect on, 1006
glucocorticoid effect on, 1014
in pregnancy and parturition, 412

serum sodium and fluid balance, 1704
RNA, rise in enzyme level by, 1127
Salicylates, effect of, on thyroxine, 1461
Sex, testosterone metabolism in differentiation of, 460
Skin, metabolism *in vitro* of DS in, 187
Sodium, deprivation of, and aldosterone, 451
exchangeable, in man, 1645
serum, and renin and fluid balance, 1704
Spermatogenesis in Klinefelter's syndrome, 1287
Starvation, adrenergic nervous system and, 106
Stein-Leventhal syndrome, adrenocortical function in, 1781
Steroid(s), acetaldehydogenic, urinary excretion of glucuronides and sulfates of, 83
in amniotic fluid, 1189
biosynthesis of, by fetal ovaries, 1599
in ovary, 819
contraceptive, and CHO metabolism, 1564
diurnal variation in human plasma, 1356
formation by granulosa and theca, 355
metabolism in testicular feminization, 1741
16-oxygenated, in the newborn, 372
responses to ACTH-like polypeptides, 1120
urinary, meglumine and, 1515
Steroid sulfate, *de novo* synthesis of, 1680
Stroma, ovarian, androgen biosynthesis in, 1547
Sulfates, urinary excretion of 83

T_4, abnormal binding, in analbuminemia, 1064
binding to TBG, effect of sulfonylurea drugs on, 1605
concentration of, decreased free, 181
degradation of, effect of exercise on, 942
deiodination rates of, 633
distribution of, prednisone effect on, 1335
effect of methyl testosterone on metabolism of, 1690
effect of salicylates on, 1461
measurement of hepatic flux of, 1503
oral, in man, 749
transport in major illness, 1023
Taste impairment in pseudohypoparathyroidism, 624
TBG, effect of sulfonylurea drugs on binding of triiodothyronine and thyroxine to, 1605
o,p'-DDD effect on, 386
TBPA metabolism, norethandrolone and, 831
Testes, function of, effect of Provera on, 679
Testosterone, adrenal function in patients treated with, 308
factors affecting metabolic clearance rate of, 1105
globulin binding, 1160
and 17-KS in plasma, 949
metabolism of, and human sexual differentiation, 460
plasma, determination of, 1169
measurement of, 1347
Testosterone sulfate, failure of placental microsomes to aromatize, 916
Tetrahydroaldosterone, gas chromatography of, 547
Tetrahydrocortisone metabolism, 1330
Thalassemia major, endocrine function in, 805
Thecal cells, steroid formation by, 355
Thyrocalcitonin, biological activity of, 734
in parathyroid carcinoma, 1672
Thyroglobulin, inadequate iodination of, in nontoxic goiter, 1307
Thyroid gland(s), cancer of, 1257
chemical constituents of, 41
estimating plasma inorganic and absolute iodine uptake by, 757
function of, effects of cyclic AMP on, 1816
and mineral rhythms, 399
GH effect on indices of, 603
^{131}I-irradiated, deoxyribonucleic acid content and nuclear changes in, 875
medullary carcinoma of, and Cushing's syndrome, 1199
stimulator of immunized rabbits, 503, 1496
surgery of, calcitonin-like responses during, 740
uptake rates after ^{131}I therapy, 66
Thyrotoxicosis, avoidable delay in control of ^{131}I-treated, 721
Thyrotropin, thyroid responses to, 909
Tissue(s), conjugation of steroid hormones by normal and neoplastic, 1431
retro-orbital, LATS and, 1069
TLC, artifactual deiodination during, 717
Transcortin, binding affinity of, 1281
TRF, effect in man, 978
TSH, interaction of LATS and, 286
serum, effect of iodized oil on, 1669
levels of, 325
in endemic goiter, 685
Tumor(s), adrenal, with positive chorionic gonadotropin test, 903
extracts of, antidiuretic principle of, 162
Krukenberg, causing virilization, 198
lipoid, response to ACTH and HCG, 1756
thyroid, thyroglobulin-iodine in, 437
Turner's syndrome, GH studies in, 383
Twins, monozygotic, PBI and maturity at birth in, 693

Urine, cholesterol sulfate in, 927
immunologic FSH in human, 1719
inhibitor in, 492
isolation of progesterone from, 1361
LH activity in, 543

Vasopressin, pituitary function tested by, 1836
time interval between dexamethasone and, effect on ACTH release, 644
Virilization, Krukenberg tumor causing, 198
Vitamin D, metabolism of, prednisone effect on, 1341

The Journal of Clinical Endocrinology and Metabolism

VOLUME 28

JANUARY-DECEMBER, 1968

MORTIMER B. LIPSETT, Editor-in-Chief

Associate Editors: J. E. RALL, GRIFF T. ROSS

Editorial Board

Alfred M. Bongiovanni
George F. Cahill
Nicholas P. Christy
William H. Daughaday
Leslie J. DeGroot
Walter R. Eberlein
Stefan S. Fajans
Jack Fishman
Norbert Freinkel
Gilbert S. Gordan
Melvin M. Grumbach
Erlio Gurpide
Robert Heaney
Leon D. Hellman
Walter L. Herrmann
Stephen M. Krane
John H. Laragh
Mortimer Levitz
Seymour Lieberman
John A. Luetscher
Janet W. McArthur
John MacLeod
John M. McKenzie
James C. Melby
Patrick Mulrow
Charles Nugent
William D. Odell
Ralph E. Peterson
James A. Pittman
John R. K. Preedy
Kenneth J. Ryan
Robert J. Ryan
Avery A. Sandberg
P. K. Shiteri
Wilson R. Slaunwhite
David H. Solomon
S. C. Sommers
Kenneth Sterling
James F. Tait
William C. Thomas, Jr.
Raymond L. Vande Wiele
Judson J. Van Wyk

COPYRIGHT © 1968 BY THE ENDOCRINE SOCIETY
ISSUED MONTHLY FOR THE ENDOCRINE SOCIETY
BY J. B. LIPPINCOTT COMPANY, PUBLISHERS

CONTENTS OF VOLUME 28

No. 1, January 1968

Iodine Kinetics in Man—A Model 1
M. Berman, E. Hoff, M. Barandes, D. V. Becker, M. Sonenberg, R. Benua, and D. A. Koutras

Plasma Cortisol Binding Globulin Levels in Gastro-intestinal Bleeding of Stress Origin 15
H. A. Shenkin and W. Feldman

Conversion of Pregnenolone-7α-^{3}H-sulfate to Other Δ^5-3β-Hydroxysteroid Sulfates by the Human Fetal Adrenal *in Vitro* 19
G. Pérez-Palacios, A. E. Pérez, and R. B. Jaffe

A Case of Polydystrophic Dwarfism with Urinary Excretion of Dermatan Sulfate and Heparan Sulfate 26
N. Fallis, F. L. Barnes, II, and N. Di Ferrante

Testosterone, Androstenedione and Dehydroepiandrosterone in Plasma During Pregnancy and at Delivery: Concentration and Protein Binding 34
M. A. Rivarola, M. G. Forest, and C. J. Migeon

Effect of Disease on Chemical Constituents of the Human Thyroid Gland 41
D. M. Goldberg, R. B. Goudie, and H. A. Ayre

Inhibition of α- and β-Hydroxysteroid Dehydrogenases and Steroid Δ-Isomerase by Substrate Analogues 49
A. M. Neville and L. L. Engel

Familial Idiopathic Hypoparathyroidism 61
D. Bronsky, R. T. Kiamko, and S. S. Waldstein

Long-Term Changes in Thyroidal Clearance Rate After Radioiodine Therapy 66
J. Myhill, I. Holes, P. Figgis, and R. Dvoskin

Effect of Lysine Vasopressin Dimer on Corticotropin Release in Man 73
K. Takebe, A. Kuroshima, M. Yamamoto, Y. Horiuchi, S. Itoh, C. Y. Bowers, and A. V. Schally

Coexistence of Primary Ovarian Insufficiency, Primary Adrenocortical Insufficiency and Idiopathic Hypoparathyroidism 79
J. E. Golonka and A. D. Goodman

Urinary Excretion of Glucuronides and Sulfates of Acetaldehydogenic Steroids 83
W. J. Riley

Reversible Reproduction of the Abnormal Cortisol Metabolite Pattern of Cirrhosis by Administration of Norethandrolone 92
B. Zumoff, H. L. Bradlow, J. Cassouto, T. F. Gallagher, and L. Hellman

LETTERS TO THE EDITOR

Bioassay Determination of Luteinizing Hormone (LH) and Follicle Stimulating Hormone (FSH) in Adult Male Plasma 100
H. E. Kulin, A. B. Rifkind, and G. T. Ross

Measurement of Urinary Human Growth Hormone by Radioimmunoassay 103
M. Sakuma, M. Irie, K. Shizume, T. Tsushima, and K. Nakao

Some Data on the Metabolic Function of the Adrenergic Nervous System in the Obese and During Starvation 106
E. J. Pinter and C. J. Pattee

Effect of Extrathyroidal Activity on the Estimation of Radioiodide Clearance 111
J. Shimmins, B. Jasani, T. Hilditch, R. McG. Harden, and W. D. Alexander

Iodine Deficiency, a Permissive Condition in the Development of Endemic Goiter 114
F. Delange, C. Thilly, and A. M. Ermans

The Salivary Iodide Trap in Nontoxic Goiter 117
R. McG. Harden, W. D. Alexander, C. J. S. Chisholm, and J. Shimmins

Disc Solid-Phase Radioimmunoassay of Human Luteinizing Hormone 121
K. J. Catt, H. D. Niall, G. W. Tregear, and H. G. Burger

PRELIMINARY COMMUNICATION

Radio-Ligand Binding Assay of Specific Estrogens Using a Soluble Uterine Macromolecule 127
S. G. Korenman

No. 2, February 1968

Simultaneous Fluorometric Determination of Cortisol and Corticosterone in Human Plasma 137
M. M. Martin and A. L. A. Martin

Hypoglycemia in a Two-Year-Old Boy with Adrenocorticotropic Hormone (ACTH) Deficiency (Probably Isolated) and Adrenal Medullary Unresponsiveness to Insulin-Induced Hypoglycemia 146
W. Hung and C. J. Migeon

Congenital Adrenal Hyperplasia Due to a Deficiency of One of the Enzymes Involved in the Biosynthesis of Pregnenolone 153
A. M. Camacho, A. Kowarski, C. J. Migeon, and A. J. Brough

Antidiuretic Principle in Malignant Tumor Extracts from Patients with Inappropriate ADH Syndrome 162
H. Vorherr, S. G. Massry, R. D. Utiger, and C. R. Kleeman

Metabolism of Intrathyroidal Iodine in Normal Men 169
A. M. Ermans, J. Kinthaert, C. Delcroix, and J. Collard

Decreased Serum Free Thyroxine Concentration in Patients Treated with Diphenylhydantoin 181
W. Chin and G. C. Schussler

In Vitro Metabolism of Dehydroepiandrosterone Sulfate in Foreskin, Abdominal Skin and Vaginal Mucosa 187
M. H. Kim and W. L. Herrmann

Urinary Estrogen Titers in a Patient with Feminizing Adrenocortical Carcinoma 192
H. H. Wotiz, S. C. Chattoraj, and J. L. Gabrilove

Gonadotropin-Dependent Krukenberg Tumor Causing Virilization During Pregnancy 198
T. B. Connor, F. M. Ganis, H. S. Levin, C. J. Migeon, and L. G. Martin

Testosterone and Androstenedione Production Rates in Patients with Metastatic Adrenal Cortical Carcinoma 215
C. W. Bardin, M. B. Lipsett, and A. French

Characterization and Source of a Renin-like Enzyme in Anephric Humans 221
J. P. Capelli, L. G. Wesson, Jr., G. E. Aponte, C. Faraldo, and E. Jaffe

Production of Congenital Adrenocortical Hyperplasia in Rats by Estradiol-17β and Inhibition of 3β-Hydroxysteroid Dehydrogenase 231
A. S. Goldman

Four Stem-Line Mosaicism (XO/XY/XXY/XYY) in an Infant with Ambiguous External Genitalia 239
W. H. Finley, S. C. Finley, J. G. Cocoris, and C. S. Pittman

A Method for the Measurement of Estrone and Estradiol-17β in Peripheral Human Blood and Other Biological Fluids Using ^{35}S Pipsyl Chloride 244
D. T. Baird

Adrenocortical Failure in Panhypopituitarism 259
Z. H. Chakmakjian, D. H. Nelson, and J. E. Bethune

Secretion of Insulin Induced by Amino Acids and Glucose in Diabetes Mellitus 266
J. C. Floyd, Jr., S. S. Fajans, J. W. Conn, C. Thiffault, R. F. Knopf, and E. Guntsche

Gynecomastia and Hyperthyroidism. An Endocrine and Histological Investigation 277
K. L. Becker, J. L. Winnacker, M. J. Matthews, and G. A. Higgins, Jr.

On the Competitive Interaction of Long-Acting Thyroid Stimulator and Thyrotropin *in Vivo* 286
G. Burke

LETTERS TO THE EDITOR

In Vivo Measurement of the Intrathyroidal Iodine Concentration in Man by Activation Analysis 294
K. Boddy, R. McG. Harden, and W. D. Alexander

Growth Hormone Response to Hypoglycemia in Myxedema 301
H. Brauman and C. Corvilian

An Improved Method for Chromatography of Iodothyronines 305
D. Bellabarba, R. E. Peterson, and K. Sterling

Adrenal Function in Patients Treated with Testosterone and Fluorinated Pyrimidines 308
L. B. Morrow, G. N. Burrow, S. R. Kaplan, and P. J. Mulrow

Effect of Fasting on Urinary Calcium and Hydroxyproline Excretion in Obesity 311
J. Litvak, J. Wortsman, H. Pumarino, and R. Armendaris

Unbound Plasma Cortisol as Measured by Ultrafiltration *in Vivo:* Effect of Estrogen Treatment 313
P. De Moor, R. Verberckmoes, and W. Heyns

No. 3, March 1968

Measurements of the Thyroid-Stimulating Hormone Content of Serum from Hypothyroid and Euthyroid People 325
D. D. Adams and T. H. Kennedy

Antidiuretic Effect of 1-Propyl-3-p-chlorobenzene-sulfonylurea (Chlorpropamide) 332
J. Reforzo-Membrives, L. I. Moledo, A. E. Lanaro, and A. Megías

Comparison of the Effect of the Pyrogens, Etiocholanolone and Bacterial Endotoxin on Plasma Cortisol and Growth Hormone in Man 337
H. R. Kimball, M. B. Lipsett, W. D. Odell, and S. M. Wolff

Clinical Evaluation of Urinary Cortisol Determinations by Competitive Protein-Binding Radioassay 343
B. E. P. Murphy

Enzymes of the Human Pineal Body 349
T. Otani, F. Györkey, and G. Farrell

Steroid Formation by Isolated and Recombined Ovarian Granulosa and Thecal Cells 355
K. J. Ryan, Z. Petro, and J. Kaiser

Plasma Renin Activity and Aldosterone Secretion in Hypertensive Patients During High and Low Sodium Intake and Administration of Diuretic 359
M. H. Weinberger, A. J. Dowdy, G. W. Nokes, and J. A. Luetscher

Urinary Excretion of 16α-Hydroxydehydroepiandrosterone and 16-Ketoandrostenediol During the Early Neonatal Period 372
R. E. Cleary and R. J. Pion

Plasma Cortisol Concentration and Disappearance Rate of 4-^{14}C-cortisol in Newcomers to High Altitude 379
F. Moncloa, I. Velasco, and L. Beteta

Growth Hormone Studies in Turner's Syndrome 383
C. L. Donaldson, L. C. Wegienka, D. Miller, and P. H. Forsham

Effect of o,p'-DDD and Similar Compounds on Thyroxine Binding Globulin 386
J. S. Marshall and L. S. Tompkins

Measurements of Serum Growth Hormone and Insulin in Gigantism 393
S. Lopis, A. H. Rubenstein, and A. D. Wright

Effect of Altered Thyroid Function on Calcium and Phosphorus Circadian Rhythms 399
D. H. Mintz, D. E. Hellman, and J. J. Canary

Plasma Renin Activities During Pregnancy and Parturition 412
G. W. Geelhoed and A. J. Vander

LETTERS TO THE EDITOR

Effect of Estrogens on Mature Height in Tall Girls: A Controlled Study 416
S. D. Frasier and F. G. Smith, Jr.

Clinical Evaluation of the Determination of Thyroxine Iodine 420
C. E. Cassidy, J. Benotti, and S. Peno

Overnight Suppression Test with Dexamethasone in Cushing's Syndrome 422
C. T. Sawin, G. A. Bray, and B. A. Idelson

PRELIMINARY COMMUNICATION

Growth Hormone Secretion Enhanced by Androgens 425
L. G. Martin, J. W. Clark, and T. B. Connor

No. 4, April 1968

Hyaluronic Acid in Localized Myxedema 433
J. C. Sisson

Thyroglobulin-Iodine in Thyroid Tumors 437
L. Valenta, S. Lissitzky, and R. Aquaron

Soluble Proteins in Thyroid Neoplasia 442
L. Valenta, F. Kyncl, B. Niederle, and L. Jirousek

Aldosterone and Sodium Conservation: The Effect of Acute Dietary Sodium Deprivation on the Plasma Concentration, the Metabolic Clearance and the Secretion and Excretion Rates of Aldosterone in Normal Subjects 451
H. C. Ford, H. P. Pieters, and R. E. Bailey

Studies on Testosterone Metabolism in Human Subjects with Normal and Pathological Sexual Differentiation 460
P. Mauvais-Jarvis, H. H. Floch, and J.-P. Bercovici

Hyperuricemia in Down's Syndrome 472
S. S. Pant, H. W. Moser, and S. M. Krane

Plasma Androgens in Patients with the Polycystic Ovary Syndrome 479
R. Horton and J. Neisler

Metabolic Effects of Placental Lactogen (HPL) in Man 485
N. Samaan, S. C. C. Yen, D. Gonzalez, and O. H. Pearson

Inhibition of Toad Bladder Sodium Transport and $Na^+ + K^+$ Stimulated Adenosinetriphosphatase by Extracts of Human Urine: Studies of Patients with Virilizing Adrenal Hyperplasia 492
J. G. Hollowell, J. W. Frazer, and L. I. Gardner

Thyroid-Stimulating Activity in the Serum of Rabbits Immunized with Thyroid Microsomes 503
G. N. Beall and D. H. Solomon

Plasma Corticosteroid and Growth Hormone Response to Lysine-Vassopressin in Man 511
J. Brostoff, V. H. T. James, and J. Landon

Radioimmunoassay of Human Follicle Stimulating and Luteinizing Hormones in Plasma 519
B. B. Saxena, H. Demura, H. M. Gandy, and R. E. Peterson

Use of 2-Deoxy-D-glucose in Studying the Mechanism of Lipid Mobilization 535
S. G. Grasso, J. H. Karam, L. C. Wegienka, G. M. Grodsky, and P. H. Forsham

Human Luteinizing Hormone (LH) Activity in Processed and Unprocessed Urine Measured by Radioimmunoassay and Bioassay 543
H. E. Kulin, A. B. Rifkind, and G. T. Ross

Measurement of Urinary Tetrahydroaldosterone by Gas Chromatography with Electron Capture Detection 547
G. L. Nicolis, H. H. Wotiz, and J. L. Gabrilove

A Simple Twenty-four Hour Test To Evaluate Hypothalamus-Pituitary-Adrenal Cortical Function 558
W. D. Hawley, F. de B. Verster, G. V. de Rodriguez, A. V. Schally, and C. Y. Bowers

Response to Parathyroid Hormone Infusion in Primary Hyperparathyroidism 567
D. C. Purnell, J. D. Jones, and K. L. Becker

Thyroidal Uptake and Turnover of the Pertechnetate Ion in Normal and Hyperthyroid Subjects 575
J. Shimmins, T. Hilditch, R. McG. Harden, and W. D. Alexander

LETTER TO THE EDITOR

Aldosterone Metabolism in Children with Cystic Fibrosis and Their Parents 582
J. M. Montalvo, C. S. McCaa, and W. Q. Cole

No. 5, May 1968

A Syndrome of Primary Hypothyroidism, Amenorrhea and Galactorrhea 591
F. Ross and M. L. Nusynowitz

Experimental Production of a Thyroid-Stimulating Antithyroid Antibody 596
J. M. McKenzie

Effect of Human Growth Hormone on Thyroidal Secretion, Radiothyroxine Turnover and Transport in Man 603
L. Oliner and J. J. Ballantine

Feminizing Adrenocortical Carcinoma with Hypertension 608
S. S. Solomon, S. P. Swersie, C. A. Paulsen, and E. G. Biglieri

Effect of Iodination on the Biological Activity and Metabolism of Human Luteinizing Hormone 613
P. O. Kohler, J. M. Phang, W. W. Tullner, G. T. Ross, and W. D. Odell

Adrenal Hyperplasia—a Case Report of Delayed Onset of the Congenital Form or an Acquired Form 619
V. B. Mahesh, R. B. Greenblatt, and R. F. Coniff

Impairment of Olfaction and of the Tastes of Sour and Bitter in Pseudohypoparathyroidism 624
R. I. Henkin

Synthesis of 5α-Pregnane-3,20-dione by Fetal and Adult Human Adrenals 629
E. H. Charreau, M. L. Dufau, D. B. Villee, and C. A. Villee

Theoretical and Practical Considerations of Thyroxine Deiodination Rates in Man 633
R. P. Levy, J. S. Marshall, and M. G. Sheahan

Effect of Dexamethasone on ACTH Release Induced by Lysine Vasopressin in Man; Time Interval Between Dexamethasone and Vasopressin Injection 644
K. Takebe, H. Kunita, M. Sakakura, and Y. Horiuchi

Effects of Varying Phosphate Intake in Primary Hyperparathyroidism 651
E. Eisenberg

Cortisol Production Rate. VIII. Pregnancy 661
C. J. Migeon, F. M. Kenny, and F. H. Taylor

Urinary 17-Ketosteroid Excretion of Women with Advanced Breast Cancer 667
S. Kumaoka, N. Sakauchi, O. Abe, M. Kusama, and O. Takatani

Effect of Parathyroid Hormone Extract on Divalent Ion Excretion in Man 673
J. E. Bethune, R. A. Turpin, and H. Inoue

Effect of Treatment with Medroxyprogesterone Acetate (Provera) on Testicular Function: 679
M. A. Rivarola, A. M. Camacho, and C. J. Migeon

Edemic Goiter in Western New Guinea. III. Thyroid-Stimulating Activity of Serum from Severely Iodine-Deficient People 685
D. D. Adams, T. H. Kennedy, J. C. Choufoer, and A. Querido

Adult Protein-Bound Iodine and Maturity at Birth in Monozygotic Twins 693
J. R. Stabenau and W. Pollin

Role of Magnesium Metabolism and the Effects of Fluoride Therapy in Paget's Disease of Bone 700
L. V. Avioli and M. Berman

LETTERS TO THE EDITOR

Effects of Weight, Sex and Diurnal Variation on the Excretion of 17-Hydroxycorticosteroids 711
G. C. Curtis, M. L. Fogel, D. McEvoy, and C. Zarate

Serum Free Thyroxine and Binding-Proteins After Muscular Exercise 714
Ph. De Nayer, P. Malvaux, M. Ostyn, H. G. Van den Schrieck, C. Beckers, and M. De-Visscher

Artifactual Deiodination During Cellulose-Starch Thin Layer Chromatography 717
D. A. Fisher

Delay in Control of ^{131}I-Treated Thyrotoxicosis Is Avoidable 721
J. I. Hamburger, G. Kadian, and H. W. Rossin

Sympathetic Nervous System Blocking in Hyperthyroidism 725
A. I. Vinik, B. L. Pimstone, and R. Hoffenberg

Metabolic Fate of Histidylleucine, a Metabolite of Angiotensin I 728
R. I. Gregerman

ACTH Release in Response to Metyrapone in Diabetes Insipidus Patients 731
P. Cushman, Jr.

PRELIMINARY COMMUNICATIONS

Extraction, Partial Purification and Demonstration of Biological Activity of Human Thyrocalcitonin 734
R. J. Barrett, N. H. Bell, P. H. Stern, and R. J. Schlueter

Calcitonin-like Responses in Man During Thyroid Surgery 740
E. L. Kaplan, R. Staroscik, G. W. Peskin, and C. D. Arnaud

No. 6, June 1968

Absorption of Oral Thyroxine in Man 749
M. T. Hays

Comparison of Methods for Estimating the Plasma Inorganic Iodine and the Absolute Iodine Uptake by the Thyroid Gland 757
D. A. Koutras, S. N. Papadopoulos, J. G. Sfontouris, and G. A. Rigopoulos

Geographic Variation of Radioiodine Uptake in Euthyroid Subjects 761
T. H. Oddie, F. G. Pirnique, D. A. Fisher, and J. H. Meade, Jr.

Effect of Age and Sex on the Radioiodine Uptake in Euthyroid Subjects 776
T. H. Oddie, J. Myhill, F. G. Pirnique, and D. A. Fisher

Familial Monotropic Pituitary Gonadotropin Insufficiency: *R. W. Ewer* 783

Simultaneous Graves' Disease and Cushing's Syndrome with Unusually Low Levels of Plasma Cortisol 789
K. Kreines and V. M. Esselborn

Clinical and Genetic Heterogeneity in Idiopathic Addison's Disease and Hypoparathyroidism: *M. W. Spinner, R. M. Blizzard, and B. Childs* 795

Endocrine Function in Thalassemia Major 805
B. Kuo, E. Zaino, and M. S. Roginsky

Endocrine Studies in a Patient with a Gonadotropin-Secreting Bronchogenic Carcinoma 809
K. L. Becker, J. Cottrell, C. F. Moore, J. L. Winnacker, M. J. Matthews, and S. Katz

Metabolism of Pregnenolone-7α-^{3}H and Progesterone-4-^{14}C in Human Granulosa Cell Tumor Slices 819
M. A. MacAulay and I. Weliky

Effect of Norethandrolone on the Metabolism of ^{125}I-Labeled Thyroxine-Binding Prealbumin 831
L. E. Braverman, E. L. Socolow, K. A. Woeber, and S. H. Ingbar

Metabolism of 17α-Hydroxypregnenolone-7α-^{3}H and 17α-Hydroxyprogesterone-4-^{14}C in Young and Elderly Men 836
L. P. Romanoff, K. K. Malhotra, M. N. Baxter, A. W. Thomas, and G. Pincus

Mechanics of Ovulation: *D. Rodbard* 849

Enterohepatic Metabolism of Estriol-3-sulfate-16-glucosiduronate in Women 862
M. Levitz and J. Katz

Some Results of the Effect of Fluoride on Bone Tissue in Osteoporosis 869
J. Jowsey, R. K. Schenk, and F. W. Reutter

Deoxyribonucleic Acid Content Associated with Nuclear Changes in ^{131}I-Irradiated Human Thyroids 875
B. M. Dobyns and L. R. Robison, III

On Obtaining Luteinizing and Follicle-Stimulating Hormones from Human Pituitaries 886
R. J. Ryan

Bilateral Carcinoma of the Breast in a Patient with Klinefelter's Syndrome 897
M. C. Robson, Q. Santiago, and T. W. Huang

Feminizing Tumor of the Adrenal Gland with Positive "Chorionic-like" Gonadotropin Test 903
L. I. Rose, G. H. Williams, P. I. Jagger, and D. P. Lauler

LETTERS TO THE EDITOR

Unusual Thyroid Responses to Thyrotropin Stimulation 909
G. S. Levey, J. Sode, and P. Gorden

Influence of Body Weight on Thyroidal Uptake of Radioiodine 912
R. F. Harvey

Failure of Placental Microsomes To Aromatize Testosterone Sulfate 916
S. G. Cheatum, J. C. Diebold, and J. C. Warren

Iodine Excretion During Short-Term Fasting 919
L. J. DeGroot

PRELIMINARY COMMUNICATIONS

Efficacy of Amino-glutethimide in the Ectopic ACTH Syndrome 921
P. Gorden, C. E. Becker, G. S. Levey, and J. Roth

Pattern of Urinary 17-Hydroxycorticoid Excretion Following the Injection of Pyrogen in Normal Subjects 924
K. Takebe, C. Setaishi, M. Yamamoto, and Y. Horiuchi

Identification of Cholesterol Sulfate in Urine and Plasma of Normal and Hypercholesterolemic Subjects 927
J. S. D. Winter and A. M. Bongiovanni

No. 7, July 1968

Influence of Age and Sex on Normal Estradiol Metabolism 937
B. Zumoff, J. Fishman, J. Cassouto, T. F. Gallagher, and L. Hellman

Effect of Exercise on Thyroxine Degradation in Athletes and Non-athletes 942
C. H. G. Irvine

Measurement of Testosterone and 17-Ketosteroids in Plasma by the Double Isotope Dilution Derivative Technique 949
H. M. Gandy and R. E. Peterson

Effect of Thyrotropin-Releasing Factor in Man 978
C. Y. Bowers, A. V. Schally, W. D. Hawley, C. Gual, and A. Parlow

Pregnenolone Metabolism in an Aldosterone Secreting Tumor of the Adrenal and Its Adjacent Adrenal Tissue 983
M. L. Dufau, D. B. Villee, and B. Kliman

Dynamics of Insulin Secretion in Myotonic Dystrophy 992
T. A. Huff and H. E. Lebovitz

Increased Renal Tubular Reabsorption of Phosphorus in Acromegaly 999
F. Camanni, F. Massara, O. Losana, and G. M. Molinatti

Effect of Corticotropin on Aldosterone Excretion and Plasma Renin in Normal Subjects, in Essential Hypertension and in Primary Aldosteronism 1006
M. A. Newton and J. H. Laragh

Effects of Glucocorticoid Administration on Aldosterone Excretion and Plasma Renin in Normal Subjects, in Essential Hypertension and in Primary Aldosteronism 1014
M. A. Newton and J. H. Laragh

Thyroxine Transport and Turnover in Major Nonthyroidal Illness 1023
D. Bellabarba, M. Inada, N. Varsano-Aharon, and K. Sterling

Lipolytic Effect of Growth Hormone in Acromegaly 1031
C. A. Mautalen, R. C. Mellinger, and R. W. Smith, Jr.

Immunochemical Heterogeneity of Parathyroid Hormone in Plasma 1037
S. A. Berson and R. S. Yalow

Daily Iodine Intake in a Goiter Endemic 1048
J. A. Maisterrena, E. Tovar, and A. Chavez

Effect of Temperature and Dexamethasone on the Plasma 17-Hydroxycorticoid and Growth Hormone Responses to Pyrogen 1056
M. Miller and A. M. Moses

LETTERS TO THE EDITOR

Abnormalities of Thyroxine Binding in Analbuminemia 1064
C. S. Hollander, G. Bernstein, and J. H. Oppenheimer

A Modification of Our Method for the Determination of Plasma Estriol in Pregnancy 1067
M. Levitz and M. Bassett

Failure of Retro-orbital Tissue To Neutralize the Biological Activity of the Long-Acting Thyroid Stimulator 1069
J. Shillinglaw and R. D. Utiger

PRELIMINARY COMMUNICATIONS

Luteinizing Hormone and Growth Hormone Activity of the Human Fetal Pituitary 1071
B. F. Rice, R. Ponthier, Jr., and W. Sternberg

Idiopathic or Genetic Elevation of Corticosteroid-Binding Globulin? 1073
F. Lohrenz, R. P. Doe, and U. S. Seal

FSH and LH Activity in Urinary Extracts: A Comparison of Radioimmunoassay and Bioassay Methods 1076
C. Faiman, R. J. Ryan, and A. Albert

Increased Plasma Levels of Growth Hormone During Infusion of Propranolol 1079
H. Imura, Y. Kato, M. Ikeda, M. Morimoto, M. Yawata, and M. Fukase

Epinephrine Synthesis in Cushing's Syndrome 1082
A. E. Kitabchi and R. H. Williams

Blood Progesterone and 17-Hydroxyprogesterone Levels and Production Rates in a Boy with Virilizing Congenital Adrenal Hyperplasia 1085
C. A. Strott, T. Yoshimi, C. W. Bardin, and M. B. Lipsett

No. 8, August 1968

Further Study of Factors Affecting the Metabolic Clearance Rate of Testosterone in Man 1105
A. L. Southren, G. G. Gordon, and S. Tochimoto

Prednisone Effect on Urinary Excretion of Hydroxyproline in Patients with Muscular Dystrophy 1113
A. C. Kibrick, H. L. Power, E. Sevendal, and A. T. Milhorat

Steroid Responses to ACTH-like Polypeptides 1120
T. S. Danowski, K. Hofmann, F. A. Weigand, and J. H. Sunder

Elevation of Level of 3β-Hydroxysteroid Dehydrogenase in Rats by Extracts of DNA or RNA 1127
A. S. Goldman

Plasma Androstenedione and Testosterone During Pregnancy and in the Newborn 1133
M. Mizuno, J. Lobotsky, C. W. Lloyd, T. Kobayashi, and Y. Murasawa

Cytochrome P450 and Steroid 11β-Hydroxylation in Mitochondria from Human Adrenal Cortex 1143
L. D. Wilson, S. B. Oldham, and B. W. Harding

Resistance to Parathyroid Extract in Gardner's Syndrome 1153
C. W. Trygstad, E. Zisman, C. J. Witkop, Jr., and F. C. Bartter

Studies of Testosterone Binding Globulin 1160
T. Kato and R. Horton

Determination of Plasma Testosterone by the Use of Competitive Protein Binding 1169
D. Mayes and C. A. Nugent

Observations Against a Causal Relationship Between the Long-Acting Thyroid Stimulator and Ophthalmopathy in Graves' Disease 1177
J. M. McKenzie and E. P. McCullagh

Lactation in the Absence of Human Growth Hormone 1183
D. L. Rimoin, G. B. Holzman, T. J. Merimee, D. Rabinowitz, A. C. Barnes, J. E. A. Tyson, and V. A. McKusick

Isolation and Quantitation of Steroids from Normal Human Amniotic Fluid 1189
A. E. Schindler and P. K. Siiteri

Medullary Carcinoma of the Thyroid—A Cause of Cushing's Syndrome: Report of Two Cases 1199
G. F. Donahower, O. P. Schumacher, and J. B. Hazard

Thyroidal Iodoproteins in Pendred's Syndrome 1205
G. A. Medeiros-Neto, W. Nicolau, J. Kieffer, and A. U. Ulhoa Cintra

Report of the National Pituitary Agency Collaborative Study on the Radioimmunoassay of FSH and LH 1214
A. Albert, E. Rosemberg, G. T. Ross, C. A. Paulsen, and R. J. Ryan

LETTERS TO THE EDITOR

Growth Hormone Response During Sandfly Fever 1220
W. R. Beisel, K. A. Woeber, P. J. Bartelloni, and S. H. Ingbar

Hypercalcemia Following Acute Renal Failure 1224
R. W. Turkington, H. K. Delcher, and F. A. Neelon

PRELIMINARY COMMUNICATION

Some Species Differences of Uterine Estradiol Receptors 1227
R. H. Wyss, W. L. Heinrichs, and W. L. Herrmann

No. 9, September 1968

Gregory Goodwin Pincus (1903–1967) 1245
C.-R. Garcia

Steroid Hormone Formation in the Human Ovary: V. Synthesis of Progesterone *in Vivo* in Corpora Lutea During the Reproductive Cycle 1249
W. J. Le Maire, B. F. Rice, and K. Savard

Ultrastructure and Soluble Iodoproteins in Human Thyroid Cancer 1257
A. Lupulescu, D. Andreani, F. Monaco, and M. Andreoli

Aldosterone Secretory Rates in the Normal Menstrual Cycle 1269
M. J. Gray, K. S. Strausfeld, M. Watanabe, E. A. H. Sims, and S. Solomon

Radioimmunoassay of Human Follicle Stimulating Hormone: Bias Due to Antisera 1276
C. M. Cargille, D. Rodbard, and C. T. Ross

Cortisol Binding Affinity of Plasma Transcortin (CBA) as Studied by Competitive Adsorption 1281
P. De Moor and W. Heyns

Fine Structure of Spermatogenesis in Klinefelter's Syndrome 1287
J. Gomez-Acebo, R. Parrilla, J. A. Abrisqueta, and V. Pozuelo

Purification of Urinary Follicle Stimulating Hormone by Gel Filtration in the Presence of Sodium Dodecyl Sulfate 1295
N. S. Jiang and A. Albert

Suppression of Testosterone and Androstenedione Production Rates with Dexametha- 1300

sone in Women with Idiopathic Hirsutism and Polycystic Ovaries
C. W. Bardin, W. C. Hembree, and M. B. Lipsett

Defective Intrathyroidal Iodine Metabolism in Nontoxic Goiter: Inadequate Iodination of Thyroglobulin 1307
A. M. Ermans, J. Kinthaert, and M. Camus

A Testicular-Interstitial-Cell-Stimulating Gonadotrophin in a Child with Hepatoblastoma and Sexual Precocity 1317
A. W. Root, A. M. Bongiovanni, and W. R. Eberlein

Serum FSH and HCG During Human Pregnancy and Puerperium 1323
C. Faiman, R. J. Ryan, S. J. Zwirek, and M. E. Rubin

Metabolism of Tetrahydrocortisone in Health and Disease 1330
B. Zumoff, H. L. Bradlow, T. F. Gallagher, and I. Hellman

Effect of Prednisone on Thyroxine Distribution 1335
R. S. Kumar, B. U. Musa, W. G. Appleton, and J. T. Dowling

Effects of Prednisone on Vitamin D Metabolism in Man 1341
L. V. Avioli, S. J. Birge, and S. W. Lee

Measurement of Plasma Testosterone and Δ^4-Androstenedione Using Electron Capture Gas-Liquid Chromatography 1347
M. A. Kirschner and G. D. Coffman

Diurnal Variation in the Concentrations of Solvolyzable Steroids in Human Plasma 1356
T. Laatikainen and R. Vihko

LETTERS TO THE EDITOR

Isolation and Identification of Progesterone from Urine of Nonpregnant Women 1361
H. J. Van der Molen and C. Corpéchot

Plasma Corticotrophin Estimations in Addison's Disease and Following Adrenalectomy for Cushing's Disease 1367
N. E. Sirett and H. D. Purves

A Male with 4 Y-Chromosomes 1370
H. Van Den Berghe, H. Verresen, and J. J. Cassiman

Fluorometric Determination of Corticosteroids: An Interfering Substance in Impure Dichloromethane Which Fluoresces with Benzyl Alcohol Preservative in Heparin 1373
J. W. Kendall, M. L. Egans, and A. K. Stott

Lack of Prolonged Activity of a New ACTH Preparation (DW-75) in Human Subjects 1377
W. Jubiz, D. C. West, and F. K. Tyler

Biosynthesis of 18-Hydroxydeoxycorticosterone from Deoxycorticosterone-4-^{14}C by the Human Adrenal Gland 1380
A. F. de Nicola and M. K. Birmingham

PRELIMINARY COMMUNICATIONS

Effects of Methacholine on Insulin Secretion in Man 1384
H. Kajinuma, A. Kaneto, T. Kuzuya, and K. Nakao

Cytophilic Antithyroglobulin Antibody in Human and Rabbit Sera 1389
Y. Shishiba

No. 10, October 1968

On the Metabolism of 19-Hydroxy-Δ^4-androstene-3,17-dione. Conversion to Urinary Phenolic and Neutral Metabolites in Men 1401
W. G. Kelly and S. R. Ranucci

Statistical Quality Control of Radioimmunoassays 1412
D. Rodbard, P. L. Rayford, J. A. Cooper, and G. T. Ross

Daily Urinary Excretion of Follicle-Stimulating Hormone During the Menstrual Cycle 1419
E. Rosemberg, S. R. Joshi, and T. T. Nwe

Measurement of 17-Hydroxyprogesterone in Human Plasma 1426
C. A. Strott and M. B. Lipsett

Conjugation of Steroid Hormones by Normal and Neoplastic Tissues 1431
T. L. Dao and P. R. Libby

Inactivation of Long-Acting Thyroid Stimulator (LATS) by Anti-kappa and Anti-lambda Antisera 1440
J. P. Kriss

Aldosterone Secretion Rate in the Hypertensive Form of Congenital Adrenal Hyperplasia 1445
A. Kowarski, A. Russell, and C. J. Migeon

Metabolic Clearance Rate and Production Rate of Chorionic Growth Hormone-Prolactin in Late Pregnancy 1450
S. L. Kaplan, E. Gurpide, J. J. Sciarra, and M. M. Grumbach

Effects of Salicylates on the Distribution and Early Plasma Disappearance of Thyroxine in Man 1461
B. U. Musa, R. S. Kumar, and J. T. Dowling

Potentiation of the Biologic Activity of ACTH by Human Plasma. A Preliminary Study 1465
B. M. Segal and N. P. Christy

Regulation of Human Gonadotropins. III. Luteinizing Hormone and Follicle Stimulating Hormone in Sera from Adult Males 1473
N. T. Peterson, Jr., A. R. Midgley, Jr., and R. B. Jaffe

Effect of Adrenocorticotropin and Glucocorticoids on Insulin Secretion 1479
A. E. Kitabchi, K. D. Buchanan, J. E. Vance, and R. H. Williams

Factors Related to the Age at Discovery of Diabetes Mellitus 1487
P. De Moor and E. Meulepas

Psychiatric Disorders in Primary Hyperparathyroidism 1491
P. Petersen

Thyroid-Stimulating Activity in the Serum 1496

of Immunized Rabbits. II. Nature of the Thyroid-Stimulating Material
D. H. Solomon and G. N. Beall

Direct Measurement of Hepatic Thyroxine Flux in Normal Man 1503
J. T. Dowling, W. G. Appleton, and B. U. Musa

Relationship Between Plasma Luteinizing Hormone and Urinary Estrogen Excretion During the Menstrual Cycle 1508
H. G. Burger, K. J. Catt, and J. B. Brown

LETTERS TO THE EDITOR

An Association of Pseudopseudohypoparathyroidism and Gonadal Dysgenesis with XO/XX Mosaicism and Negative Sex Chromatin Pattern in Two Females 1513
A. S. Nedok, B. S. Garzicic, and B. M. Soldatovic

Effect of Radio-Contrast Media on the Measurement of Adrenal Steroids in the Urine 1515
J. C. Nelson, G. G. Krueger, R. B. Wilcox, and W. P. Thompson

No. 11, November 1968

Influence of a Low-Calorie Diet and Fasting on the Metabolism of Dehydroepiandrosterone Sulfate in Adult Obese Subjects 1525
A. Hendrikx, W. Heyns, and P. De Moor

Impairment of Hyperglycemia Induced Growth Hormone Suppression in Hyperthyroidism 1534
A. Vinik, B. Pimstone, and B. Buchanan-Lee

Further Studies of Steroidal Inhibitors of Δ^5,3β-Hydroxysteroid Dehydrogenase and Δ^5-Δ^4,3-Ketosteroid Isomerase in *Pseudomonas testosteroni* and in Bovine Adrenals 1539
A. S. Goldman

Steroid Hormone Formation in the Human Ovary. VI. Evidence for Two Pathways of Synthesis of Androgens in the Stromal Compartment 1547
P. Leymarie and K. Savard

Calcium and Phosphorus Metabolism in the Fanconi Syndrome 1555
J. Rodriguez Soriano, I. B. Houston, H. Boichis, and C. M. Edelmann, Jr.

Effects of Contraceptive Steroids on Carbohydrate Metabolism 1564
S. S. C. Yen and P. Vela

Human Urinary Polypeptides with Parathyroid-like Activity 1571
G. M. A. Palmieri, L. P. Eliel, and J. Hawrylko

Stimulation and Inhibition of ACTH Release in Patients with Pituitary Disease 1581
A. M. Moses and M. Miller

A Comparative Study of Endocrine Tests in Hypothalamic Disease. Circadian Periodicity of Plasma 11-OHCS Levels, Plasma 11-OHCS and Growth Hormone Response to Insulin Hypoglycemia and Metyrapone Responsiveness 1589
D. T. Krieger, S. Glick, A. Silverberg, and H. P. Krieger

Biosynthesis of Sterols and Steroids from Acetate-^{14}C by Human Fetal Ovaries 1599
R. A. Jungmann and J. S. Schweppe

Effect of Sulfonylurea Drugs on the Binding of Triiodothyronine and Thyroxine to Thyroxine-Binding Globulin 1605
J. M. Hershman, T. J. Craane, and J. A. Colwell

Formation of Estra-1,3,5(10)-triene-3,15α, 16α,17β-tetrol (Estetrol) and Estra-1,3,5 (10)-triene-3,15α,17β-triol from Neutral Precursors 1611
E. V. YoungLai and S. Solomon

On Cortisol Production Rate 1618
D. K. Fukushima, H. L. Bradlow, L. Hellman, and T. F. Gallagher

Ophthalmopathy Without Hyperthyroidism in Patients with Histologic Hashimoto's Thyroiditis 1623
E. P. Wyse, W. M. McConahey, L. B. Woolner, D. A. Scholz, and T. P. Kearns

Effect of Posture on the Metabolic Clearance Rate, Plasma Concentration and Blood Production Rate of Aldosterone in Man 1630
H. M. Balikian, A. H. Brodie, S. L. Dale, J. C. Melby, and J. F. Tait

Serum Renin Activity During Normal Pregnancy: Effect of Alterations of Posture and Sodium Intake 1641
B. Boonshaft, J. M. B. O'Connell, J. M. Hayes, and G. E. Schreiner

Exchangeable Sodium Determinations by an Isotope Balance and a Whole-Body Counter Method. Comparison of Measured Changes of Sodium Stores in Man by These Methods and by Balance 1645
R. G. Evens, L. Baer, J. R. Gill, Jr., and F. C. Bartter

Endemic Goiter in Greece: Clinical and Metabolic Effects of Iodized Salt 1651
D. A. Koutras, S. N. Papadopoulos, J. Sfontouris, G. A. Rigopoulos, A. D. Pharmakiotis, and B. Malamos

LETTERS TO THE EDITOR

Nyctohemeral Periodicity of Plasma 17-OHCS Levels in Elderly Subjects 1666
A. Silverberg, F. Rizzo, and D. T. Krieger

Effect of Iodized Oil on Serum TSH Determined by Immunoassay in Endemic Goiter Subjects 1669
I. H. Buttfield, B. S. Hetzel, and W. D. Odell

Treatment with Thyrocalcitonin of the Hypercalcemia of Parathyroid Carcinoma 1672
C. Y. C. Pak, M. R. Wills, G. W. Smith, II, and F. C. Bartter

PRELIMINARY COMMUNICATIONS

A New Rapid Radioimmunoassay for HCG (LH, ICSH) in Plasma Using Dioxan 1676
K. Thomas and J. Ferin

De Novo Steroid Sulfate Biosynthesis 1680

R. B. Jaffe, G. Perez-Palacios, K. G. Lamont, and M. L. Givner

Measurement of Plasma Angiotensin II and Correlation with Renin Activity 1684
D. J. Gocke, L. M. Sherwood, I. Oppenhoff, J. Gerten, and J. H. Laragh

No. 12, December 1968

Bioassay and Radioimmunoassay of Human Gonadotropins 1683
A. Albert

Effect of Methyl Testosterone on Thyroxine Metabolism and on Triiodothyronine Kinetics 1690
D. A. Fisher and T. H. Oddie

Regulation of Human Gonadotropins: IV. Correlation of Serum Concentrations of Follicle Stimulating and Luteinizing Hormones During the Menstrual Cycle 1699
A. R. Midgley, Jr., and R. B. Jaffe

Plasma Renin Activity in Relation to Serum Sodium Concentration and Body Fluid Balance 1704
H. H. Newsome and F. C. Bartter

Regulation of Human Gonadotropins: II. Disappearance of Human Chorionic Gonadotropin Following Delivery 1712
A. R. Midgley, Jr., and R. B. Jaffe

Measurement of Immunologically Reactive Follicle Stimulating Hormone in Human Urine by Radioimmunoassay 1719
S. Raiti and R. M. Blizzard

Metabolism of ^{11}C-histamine Injected Into the Fetal and Maternal Circulations of the Perfused Human Placenta *in Vitro* 1724
A. L. Southren, Y. Kobayashi, W. Jung, and A. B. Weingold

Endemic Goiter in the Cauca Valley: I. Results and Limitations of Twelve Years of Iodine Prophylaxis 1730
E. Gaitan, H. W. Wahner, P. Correa, R. Bernal, W. Jubiz, J. E. Gaitan, and G. Llanos

Steroid Metabolic Pathways in Feminizing Testicular Tissue 1741
E. Charreau and C. A. Villee

Studies on the Site of Action of Oral Contraceptive Steroids. I. Effect of Antifertility Steroids on Plasma LH Levels and on the Response to Luteinizing Hormone-Releasing Factor in Rats 1747
A. V. Schally, W. H. Carter, M. Saito, A. Arimura, and C. Y. Bowers

Ovarian Lipoid Cell Tumor: Urinary Steroid Response to Adrenocorticotropin and Chorionic Gonadotropin 1756
L. B. Morrow, R. J. Thompson, and R. C. Mellinger

Disappearance Rates of Endogenous Luteinizing Hormone and Chorionic Gonadotropin in Man 1763
S. S. C. Yen, O. Llerena, B. Little, and O. H. Pearson

Traumatic Hypopituitarism Occurring Before Puberty: Survival 35 Years Untreated 1768
D. M. Klachko, N. Winer, T. W. Burns, and J. E. White

Response of Hyperlipemic Subjects to Carbohydrates, Pancreatic Hormones and Prolonged Fasting 1773
M. Friedman, R. H. Rosenman, and S. O. Byers

Adrenocortical Function in Stein-Leventhal Syndrome 1781
J. P. Thomas

Pituitary Apoplexy in Acromegaly 1784
A. L. Taylor, J. L. Finster, P. Raskin, J. B. Field, and D. H. Mintz

Severe Endogenous Hypertriglyceridemia During Treatment with Estrogen and Oral Contraceptives 1793
E. Zorrilla, M. Hulse, A. Hernandez, and H. Gershberg

Congenital Goiter with Iodoalbumin Replacing Thyroglobulin and Defect of Deiodination of Iodotyrosines. Serum Origin of the Thyroid Iodoalbumin 1797
S. Lissitzky, J. Bismuth, J.-L. Codaccioni, and G. Cartouzou

A Case of Glucocorticoid-Responsive Hyperaldosteronism 1807
K. Miura, K. Yoshinaga, K. Goto, I. Katsushima, M. Maebashi, H. Demura, M. Iino, R. Demura, and T. Torikai

Effects of Cyclic 3′,5′-Adenosine Monophosphate and Dibutyryl Cyclic 3′,5′-Adenosine Monophosphate on Basal and Stimulated Thyroid Function 1816
G. Burke

Inhibition of Uterine Receptor Binding of Estradiol by Anti-estrogens (Clomiphene and CL-868) 1824
R. H. Wyss, R. Karsznia, W. L. Heinrichs, and W. L. Hermann

LETTERS TO THE EDITOR

Control of Hypercalcemia with Cellulose Phosphate 1829
C. Y. C. Pak, J. Wortsman, J. E. Bennett, C. S. Delea, and F. C. Bartter

Bone Changes in a Patient with Hypervitaminosis A 1833
J. Jowsey and B. L. Riggs

Aqueous Vasopressin Provocative Test of Anterior Pituitary Function 1836
R. L. Eddy

Radioimmunoassay for Human Gastrin Using Unconjugated Gastrin as an Antigen 1840
W. D. Odell, A. C. Charters, W. D. Davidson, and J. C. Thompson

PRELIMINARY COMMUNICATION

Cortisol Secretion Rate During Fasting of Obese Adolescent Subjects 1843
L. Y. Garces, F. M. Kenny, A. Drash, and F. H. Taylor

AUTHOR INDEX, VOLUME 28

Abe, O. ... 667
Abrisqueta, J. A. ... 1287
Adams, D. D. ... 325, 685
Albert, A. ... 1076, 1214, 1295, 1683
Alexander, W. D. ... 111, 117, 294, 575
Andreani, D. ... 1257
Andreoli, M. ... 1257
Aponte, G. E. ... 221
Appleton, W. G. ... 1335, 1503
Aquaron, R. ... 437
Arimura, A. ... 1747
Armendaris, R. ... 311
Arnaud, C. D. ... 740
Avioli, L. V. ... 700, 1341
Ayre, H. A. ... 41

Baer, L. ... 1645
Bailey, R. E. ... 451
Baird, D. T. ... 244
Balikian, H. M. ... 1630
Ballantine, J. J. ... 603
Barandes, M. ... 1
Bardin, C. W. ... 215, 1085, 1300
Barnes, A. C. ... 1183
Barnes, F. L., II ... 26
Barrett, R. J. ... 734
Bartelloni, P. J. ... 1220
Bartter, F. C. ... 1153, 1645, 1672, 1704, 1829
Bassett, M. ... 1067
Baxter, M. N. ... 836
Beall, G. N. ... 503, 1496
Becker, C. E. ... 921
Becker, D. V. ... 1
Becker, K. L. ... 277, 567, 809
Beckers, C. ... 714
Beisel, W. R. ... 1220
Bell, N. H. ... 734
Bellabarba, D. ... 305, 1023
Bennett, J. E. ... 1829
Benotti, J. ... 420
Benua, R. ... 1
Bercovici, J.-P. ... 460
Berman, M. ... 1, 700
Bernal, R. ... 1730
Bernstein, G. ... 1064
Berson, S. A. ... 1037
Beteta, L. ... 379
Bethune, J. E. ... 259, 673
Biglieri, E. G. ... 608
Birge, S. J. ... 1341
Birmingham, M. K. ... 1380
Bismuth, J. ... 1797
Blizzard, R. M. ... 795, 1719
Boddy, K. ... 294
Boichis, H. ... 1555
Bongiovanni, A. M. ... 927, 1317
Boonshaft, B. ... 1641
Bowers, C. Y. ... 73, 558, 978, 1747
Bradlow, H. L. ... 92, 1330, 1618
Brauman, H. ... 301
Braverman, L. E. ... 831
Bray, G. A. ... 422
Brodie, A. H. ... 1630
Bronsky, D. ... 61
Brostoff, J. ... 511
Brough, A. J. ... 153
Brown, J. B. ... 1508
Buchanan, K. D. ... 1479
Buchanan-Lee, B. ... 1534
Burger, H. G. ... 121, 1508
Burke, G. ... 286, 1816
Burns, T. W. ... 1768
Burrow, G. N. ... 308
Buttfield, I. H. ... 1669
Byers, S. O. ... 1773

Camacho, A. M. ... 153, 679
Camanni, F. ... 999
Camus, M. ... 1307
Canary, J. J. ... 399
Capelli, J. P. ... 221
Cargille, C. M. ... 1276
Carter, W. H. ... 1747
Cartouzou, G. ... 1797
Cassidy, C. E. ... 420
Cassiman, J. J. ... 1370
Cassouto, J. ... 92, 937
Catt, K. J. ... 121, 1508
Chakmakjian, Z. H. ... 259
Charreau, E. H. ... 629, 1741
Charters, A. C. ... 1840
Chattoraj, S. C. ... 192
Chavez, A. ... 1048
Cheatum, S. G. ... 916
Childs, B. ... 795
Chin, W. ... 181
Chisholm, C. J. S. ... 117
Choufoer, J. C. ... 685
Christy, N. P. ... 1465
Clark, J. W. ... 425
Cleary, R. E. ... 372
Cocoris, J. G. ... 239
Codaccioni, J.-L. ... 1797
Coffman, G. D. ... 1347
Cole, W. Q. ... 582
Collard, J. ... 169
Colwell, J. A. ... 1605
Coniff, R. F. ... 619
Conn, J. W. ... 266
Connor, T. B. ... 198, 425
Cooper, J. A. ... 1412
Corpéchot, C. ... 1361
Correa, P. ... 1730
Corvilain, J. ... 301
Cottrell, J. ... 809
Craane, T. J. ... 1605
Curtis, G. C. ... 711
Cushman, P., Jr. ... 731

Dale, S. L. ... 1630
Danowski, T. S. ... 1120
Dao, T. L. ... 1431
Davidson, W. D. ... 1840
DeGroot, L. J. ... 919
Delange, F. ... 114
Delcher, H. K. ... 1224
Delcroix, C. ... 169
Delea, C. S. ... 1829
De Moor, P. ... 313, 1281, 1487, 1525
Demura, H. ... 519, 1807

Demura, R. 1807
De Nayer, Ph. 714
De Nicola, A. F. 1380
DeVisscher, M. 714
Diebold, J. C. 916
Di Ferrante, N. 26
Dobyns, B. M. 875
Doe, R. P. 1073
Donahower, G. F. 1199
Donaldson, C. L. 383
Dowdy, A. J. 359
Dowling, J. T. 1335, 1461, 1503
Drash, A. 1843
Dufau, M. L. 629, 983
Dvoskin, R. 66

Eberlein, W. R. 1317
Eddy, R. L. 1836
Edelmann, C. M., Jr. 1555
Egans, M. L. 1373
Eisenberg, E. 651
Eliel, L. P. 1571
Engel, L. L. 49
Ermans, A. M. 114, 169, 1307
Esselborn, V. M. 789
Evens, R. G. 1645
Ewer, R. W. 783

Faiman, C. 1076, 1323
Fajans, S. S. 266
Fallis, N. 26
Faraldo, C. 221
Farrell, G. 349
Feldman, W. 15
Ferin, J. 1676
Field, J. B. 1784
Figgis, P. 66
Finley, S. C. 239
Finley, W. H. 239
Finster, J. L. 1784
Fisher, D. A. 717, 761, 776, 1690
Fishman, J. 937
Floch, H. H. 460
Floyd, J. C., Jr. 266
Fogel, M. L. 711
Ford, H. C. 451
Forest, M. G. 34
Forsham, P. H. 383, 535
Frasier, S. D. 416
Frazer, J. W. 492
French, A. 215
Friedman, M. 1773
Fukase, M. 1079
Fukushima, D. K. 1618

Gabrilove, J. L. 192, 547
Gaitan, E. 1730
Gaitan, J. E. 1730
Gallagher, T. F. 92, 937, 1330, 1618
Gandy, H. M. 519, 949
Ganis, F. M. 198
Garces, L. Y. 1843
Garcia, C.-R. 1245
Gardner, L. I. 492
Garzicic, B. S. 1513
Geelhoed, G. W. 412
Gershberg H. 1793
Gerten, J. 1684
Gill, J. R., Jr. 1645
Givner, M. L. 1680
Glick, S. 1589
Gocke, D. J. 1684
Goldberg, D. M. 41
Goldman, A. S. 231, 1127, 1539
Golonka, J. E. 79
Gomez-Acebo, J. 1287
Gonzalez, D. 485
Goodman, A. D. 79
Gorden, P. 909, 921
Gordon, G. G. 1105
Goto, K. 1807
Goudie, R. B. 41
Grasso, S. G. 535
Gray, M. J. 1269
Greenblatt, R. B. 619
Gregerman, R. I. 728
Grodsky, G. M. 535
Grumbach, M. M. 1450
Gual, C. 978
Guntsche, E. 266
Gurpide, E. 1450
Györkey, F. 349

Hales, I. 66
Hamburger, J. I. 721
Harden, R. McG. 111, 117, 294, 575
Harding, B. W. 1143
Harvey, R. F. 912
Hawley, W. D. 558, 978
Hawrylko, J. 1571
Hayes, J. M. 1641
Hays, M. T. 749
Hazard, J. B. 1199
Heinrichs, W. L. 1227, 1824
Hellman, D. E. 399
Hellman, L. 92, 937, 1330, 1618
Hembree, W. C. 1300
Hendrikx, A. 1525
Henkin, R. I. 624
Hernandez, A. 1793
Herrmann, W. L. 187, 1227, 1824
Hershman, J. M. 1605
Hetzel, B. S. 1669
Heyns, W. 313, 1281, 1525
Higgins, G. A., Jr. 277
Hilditch, T. 111, 575
Hoff, E. 1
Hoffenberg, R. 725
Hofmann, K. 1120
Hollander, C. S. 1064
Hollowell, J. G. 492
Holzman, G. B. 1183
Horiuchi, Y. 73, 644, 924
Horton, R. 479, 1160
Houston, I. B. 1555
Huang, T. W. 897
Huff, T. A. 992
Hulse, M. 1793
Hung, W. 146

Idelson, B. A. 422
Iino, M. 1807
Ikeda, M. 1079
Imura, H. 1079
Inada, M. 1023
Ingbar, S. H. 831, 1220

Inoue, H. 673
Irie, M. 103
Irvine, C. H. G. 942
Itoh, S. 73

Jaffe, E. 221
Jaffe, R. B. 19, 1473, 1680, 1699, 1712
Jagger, P. I. 903
James, V. H. T. 511
Jasani, B. 111
Jiang, N. S. 1295
Jirousek, L. 442
Jones, J. D. 567
Joshi, S. R. 1419
Jowsey, J. 869, 1833
Jubiz, W. 1377, 1730
Jung, W. 1724
Jungmann, R. A. 1599

Kadian, G. 721
Kaiser, J. 355
Kajinuma, H. 1384
Kaneto, A. 1384
Kaplan, E. L. 740
Kaplan, S. L. 1450
Kaplan, S. R. 308
Karam, J. H. 535
Karsznia, R. 1824
Kato, T. 1160
Kato, Y. 1079
Katsushima, I. 1807
Katz, J. 862
Katz, S. 809
Kearns, T. P. 1623
Kelly, W. G. 1401
Kendall, J. W. 1373
Kennedy, T. H. 325, 685
Kenny, F. M. 661, 1843
Kiamko, R. T. 31
Kibrick, A. C. 1113
Kieffer, J. 1205
Kim, M. H. 187
Kimball, H. R. 337
Kinthaert, J. 169, 1307
Kirschner, M. A. 1347
Kitabchi, A. E. 1082, 1479
Klachko, D. M. 1768
Kleeman, C. R. 162
Kliman, B. 983
Knopf, R. F. 266
Kobayashi, T. 1133
Kobayashi, Y. 1724
Kohler, P. O. 613
Korenman, S. G. 127
Koutras, D. A. 1, 757, 1651
Kowarski, A. 153, 1445
Krane, S. M. 472
Kreines, K. 789
Krieger, D. T. 1589, 1666
Krieger, H. P. 1589
Kriss, J. P. 1440
Krueger, G. G. 1515
Kulin, H. E. 100, 543
Kumaoka, S. 667
Kumar, R. S. 1335, 1461
Kunita, H. 644
Kuo, B. 805
Kuroshima, A. 73

Kusama, M. 667
Kuzuya, T. 1384
Kyncl, F. 442

Laatikainen, T. 1356
Lamont, K. G. 1680
Landon, J. 511
Laragh, J. H. 1006, 1014, 1684
Lauler, D. P. 903
Lebovitz, H. E. 992
Lee, S. W. 1341
Le Maire, W. J. 1249
Lenaro, A. E. 332
Levey, G. S. 909, 921
Levin, H. S. 198
Levitz, M. 862, 1067
Levy, R. P. 633
Leymarie, P. 1547
Libby, P. R. 1431
Lipsett, M. B. 215, 337, 1085, 1300, 1426
Lissitzky, S. 437, 1797
Little, B. 1763
Litvak, J. 311
Llanos, G. 1730
Llerena, O. 1763
Lloyd, C. W. 1133
Lobotsky, J. 1133
Lohrenz, F. 1073
Lopis, S. 393
Losana, O. 999
Luetscher, J. A. 359
Lupulescu, A. 1257

MacAulay, M. A. 819
McCaa, C. S. 582
McConahey, W. M. 1623
McCullagh, E. P. 1177
McEvoy, D. 711
McKenzie, J. M. 596, 1177
McKusick, V. A. 1183
Maebashi, M. 1807
Mahesh, V. B. 619
Maisterrena, J. A. 1048
Malamos, B. 1651
Malhotra, K. K. 836
Malvaux, P. 714
Marshall, J. S. 386, 633
Martin, A. L. A. 137
Martin, L. G. 198, 425
Martin, M. M. 137
Massara, F. 999
Massry, S. G. 162
Matthews, M. J. 277, 809
Mautalen, C. A. 1031
Mauvais-Jarvis, P. 460
Mayes, D. 1169
Meade, J. H., Jr. 761
Medeiros-Neto, G. A. 1205
Megías, A. 332
Melby, J. C. 1630
Mellinger, R. C. 1031, 1756
Merimee, T. J. 1183
Meulepas, E. 1487
Midgley, A. R., Jr. 1473, 1699, 1712
Migeon, C. J. 34, 146, 153, 198, 661, 679, 1445
Milhorat, A. T. 1113
Miller, D. 383
Miller, M. 1056, 1581

Mintz, D. H. 399, 1784
Miura, K. 1807
Mizuno, M. 1133
Moledo, L. I. 332
Molinatti, G. M. 999
Monaco, F. 1257
Moncloa, F. 379
Montalvo, J. M. 582
Moore, C. F. 809
Morimoto, M. 1079
Morrow, L. B. 308, 1756
Moser, H. W. 472
Moses, A. M. 1056, 1581
Mulrow, P. J. 308
Murasawa, Y. 1133
Murphy, B. E. P. 343
Musa, B. U. 1335, 1461, 1503
Myhill, J. 66, 776

Nakao, K. 103, 1384
Nedok, A. S. 1513
Neelon, F. A. 1224
Neisler, J. 479
Nelson, D. H. 259
Nelson, J. C. 1515
Neville, A. M. 49
Newsome, H. H. 1704
Newton, M. A. 1006, 1014
Niall, H. D. 121
Nicolau, W. 1205
Nicolis, G. L. 547
Niederle, B. 442
Nokes, G. W. 359
Nugent, C. A. 1169
Nusynowitz, M. L. 591
Nwe, T. T. 1419

O'Connell, J. M. B. 1641
Oddie, T. H. 761, 776, 1690
Odell, W. D. 337, 613, 1669, 1840
Oldham, S. B. 1143
Oliner, L. 603
Oppenheimer, J. H. 1064
Oppenhoff, I. 1684
Ostyn, M. 714
Otani, T. 349

Pak, C. Y. C. 1672, 1829
Palmieri, G. M. A. 1571
Pant, S. S. 472
Papadopoulos, S. N. 757, 1651
Parlow, A. 978
Parrilla, R. 1287
Pattee, C. J. 106
Paulsen, C. A. 608, 1214
Pearson, O. H. 485, 1763
Peno, S. 420
Pérez, A. E. 19
Pérez-Palacios, G. 19, 1680
Peskin, G. W. 740
Petersen, P. 1491
Peterson, N. T., Jr. 1473
Peterson, R. E. 305, 519, 949
Petro, Z. 355
Phang, J. M. 613
Pharmakiotis, A. D. 1651
Pieters, H. P. 451
Pimstone, B. L. 725, 1534
*Pincus, G. 836
Pinter, E. J. 106
Pion, R. J. 372
Pirnique, F. G. 761, 776
Pittman, C. S. 239
Pollin, W. 693
Ponthier, R., Jr. 1071
Power, H. L. 1113
Pozuelo, V. 1287
Pumarino, H. 311
Purnell, D. C. 567
Purves, H. D. 1367

Querido, A. 685

Rabinowitz, D. 1183
Raiti, S. 1719
Ranucci, S. R. 1401
Raskin, P. 1784
Rayford, P. L. 1412
Reforzo-Membrives, J. 332
Reutter, F. W. 869
Rice, B. F. 1071, 1249
Rifkind, A. B. 100, 543
Riggs, B. L. 1833
Rigopoulos, G. A. 757, 1651
Riley, W. J. 83
Rimoin, D. L. 1183
Rivarola, M. A. 34, 679
Rizzo, F. 1666
Robison, L. R., III 875
Robson, M. C. 897
Rodbard, D. 849, 1276, 1412
Rodriquez, G. V. de 558
Roginsky, M. S. 805
Romanoff, L. P. 836
Root, A. W. 1317
Rose, L. I. 903
Rosemberg, E. 1214, 1419
Rosenman, R. H. 1773
Ross, F. 591
Ross, G. T. 100, 543, 613, 1214, 1276, 1412
Rossin, H. W. 721
Roth, J. 921
Rubenstein, A. H. 393
Rubin, M. E. 1323
Russell, A. 1445
Ryan, K. J. 355
Ryan, R. J. 886, 1076, 1214, 1323

Saito, M. 1747
Sakakura, M. 644
Sakauchi, N. 667
Sakuma, M. 103
Samaan, N. 485
Santiago, Q. 897
Savard, K. 1249, 1547
Sawin, C. T. 422
Saxena, B. B. 519
Schally, A. V. 73, 558, 978, 1747
Schenk, R. K. 869
Schindler, A. E. 1189
Schlueter, R. J. 734
Scholz, D. A. 1623
Schreiner, G. E. 1641
Schumacher, O. P. 1199

*Deceased.

Schussler, G. C. 181
Schweppe, J. S. 1599
Sciarra, J. J. 1450
Seal, U. S. 1073
Segal, B. M. 1465
Setaishi, C. 924
Sevendal, E. 1113
Sfontouris, J. G. 757, 1651
Sheahan, M. G. 633
Shenkin, H. A. 15
Sherwood, L. M. 1684
Shillinglaw, J. 1069
Shimmins, J. 111, 117, 575
Shishiba, Y. 1389
Shizume, K. 103
Siiteri, P. K. 1189
Silverberg, A. 1589, 1666
Sims, E. A. H. 1269
Sirett, N. E. 1367
Sisson, J. C. 433
Smith, F. G., Jr. 416
Smith, G. W., II 1672
Smith, R. W., Jr. 1031
Socolow, E. L. 831
Sode, J. 909
Soldatovic, B. M. 1513
Solomon, D. H. 503, 1496
Solomon, S. 1269, 1611
Solomon, S. S. 608
Sonenberg, M. 1
Soriano, J. R. 1555
Southren, A. L. 1105, 1724
Spinner, M. W. 795
Stabenau, J. R. 693
Staroscik, R. 740
Sterling, K. 305, 1023
Stern, P. H. 734
Sternberg, W. 1071
Stott, A. K. 1373
Strausfeld, K. S. 1269
Strott, C. A. 1085, 1426
Sunder, J. H. 1120
Swersie, S. P. 608

Tait, J. F. 1630
Takebe, K. 73, 644, 924
Takatani, O. 667
Taylor, A. L. 1784
Taylor, F. H. 661, 1843
Thiffault, C. 266
Thilly, C. 114
Thomas, A. W. 836
Thomas, J. P. 1781
Thomas, K. 1676
Thompson, J. C. 1840
Thompson, R. J. 1756
Thompson, W. P. 1515
Tochimoto, S. 1105
Tompkins, L. S. 386
Torikai, T. 1807
Tovar, E. 1048
Tregear, G. W. 121
Trygstad, C. W. 1153
Tsushima, T. 103
Tullner, W. W. 613
Turkington, R. W. 1224
Turpin, R. A. 673
Tyler, F. K. 1377
Tyson, J. E. A. 1183

Ulhoa Cintra, A. U. 1205
Utiger, R. D. 162, 1069

Valenta, L. 437, 442
Vance, J. E. 1479
Van Den Berghe, H. 1370
Van den Schrieck, H. G. 714
Vander, A. J. 412
Van der Molen, H. J. 1361
Varsano-Aharon, N. 1023
Vela, P. 1564
Velasco, I. 379
Verbeckmoes, R. 313
Verresen, H. 1370
Verster, F. de B. 558
Vihko, R. 1356
Villee, C. A. 629, 1741
Villee, D. B. 629, 983
Vinik, A. I. 725, 1534
Vorherr, H. 162

Wahner, H. W. 1730
Waldstein, S. S. 61
Warren, J. C. 916
Watanabe, M. 1269
Wegienka, L. C. 383, 535
Weigand, F. A. 1120
Weinberger, M. H. 359
Weingold, A. B. 1724
Weliky, I. 819
Wesson, L. G., Jr. 221
West, C. D. 1377
White, J. E. 1768
Wilcox, R. B. 1515
Williams, G. H. 903
Williams, R. H. 1082, 1479
Wills, M. R. 1672
Wilson, L. D. 1143
Winer, N. 1768
Winnacker, J. L. 277, 809
Winter, J. S. D. 927
Witkop, C. J., Jr. 1153
Woeber, K. A. 831, 1220
Wolff, S. M. 337
Woolner, L. B. 1623
Wortsman, J. 311, 1829
Wotiz, H. H. 192, 547
Wright, A. D. 393
Wyse, E. P. 1623
Wyss, R. H. 1227, 1824
Yalow, R. S. 1037
Yamamoto, M. 73, 924
Yawata, M. 1079
Yen, S. C. C. 485, 1564, 1763
Yoshimi, T. 1085
Yoshinaga, K. 1807
YoungLai, E. V. 1611

Zaino, E. 805
Zarate, C. 711
Zisman, E. 1153
Zorrilla, E. 1793
Zumoff, B. 92, 937, 1330
Zwirek, S. J. 1323